

## ABSTRACT

VCO (voltage-controlled oscillator ) device used for a radio unit such as a television broadcast receiver. A VCO device oscillating in a wide band of oscillation frequency and capable of realizing low power consumption is provided. VCO circuit group 4 oscillates signals of frequencies corresponding to control voltage  $V_t$  applied to frequency control voltage terminal 8. LO signal selecting means 3 selects a required output signal from VCO circuit group 4. PLL 6 frequency-divides local signal  $f_{vco}$  selected by LO signal selecting means 3, compares a phase thereof with a phase of a reference signal and outputs a signal converted from a phase difference. Loop filter 7 smoothes the output signal from PLL 6, outputs control voltage  $V_t$  that is a frequency control voltage and outputs the local signal selected by signal selecting means 3 to high frequency signal processing means 1.